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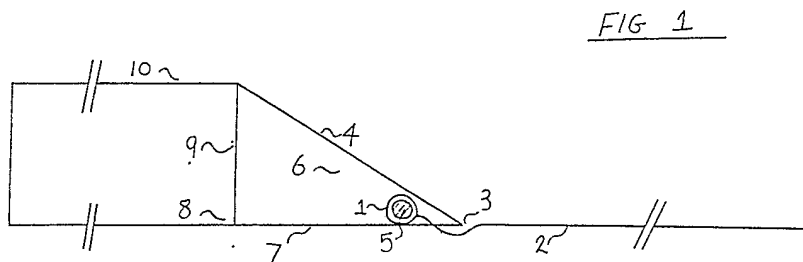
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GB A 2096096 **GB 0755620**
GB 1159755 **GB 0489483**

(58) Field of search
B8H

(54) Vehicle service ramp restraining device

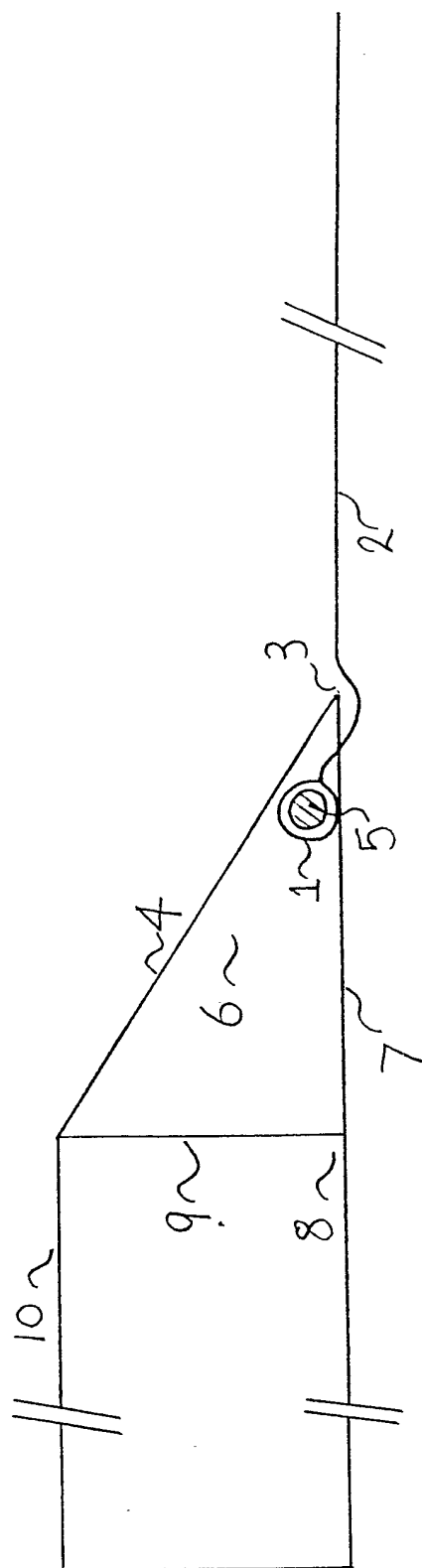
(57) A vehicle service ramp restraining device utilises a strip (2) of suitable material attached securely to the service ramp and of sufficient length to pass under the rearmost vehicle wheel so that as the vehicle moves towards the ramp, this wheel will pass over and securely restrain the ramp which will then remain stationary. The vehicle may then mount the ramp without occurrence of forward slipping or other dislocation.



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FIG 1

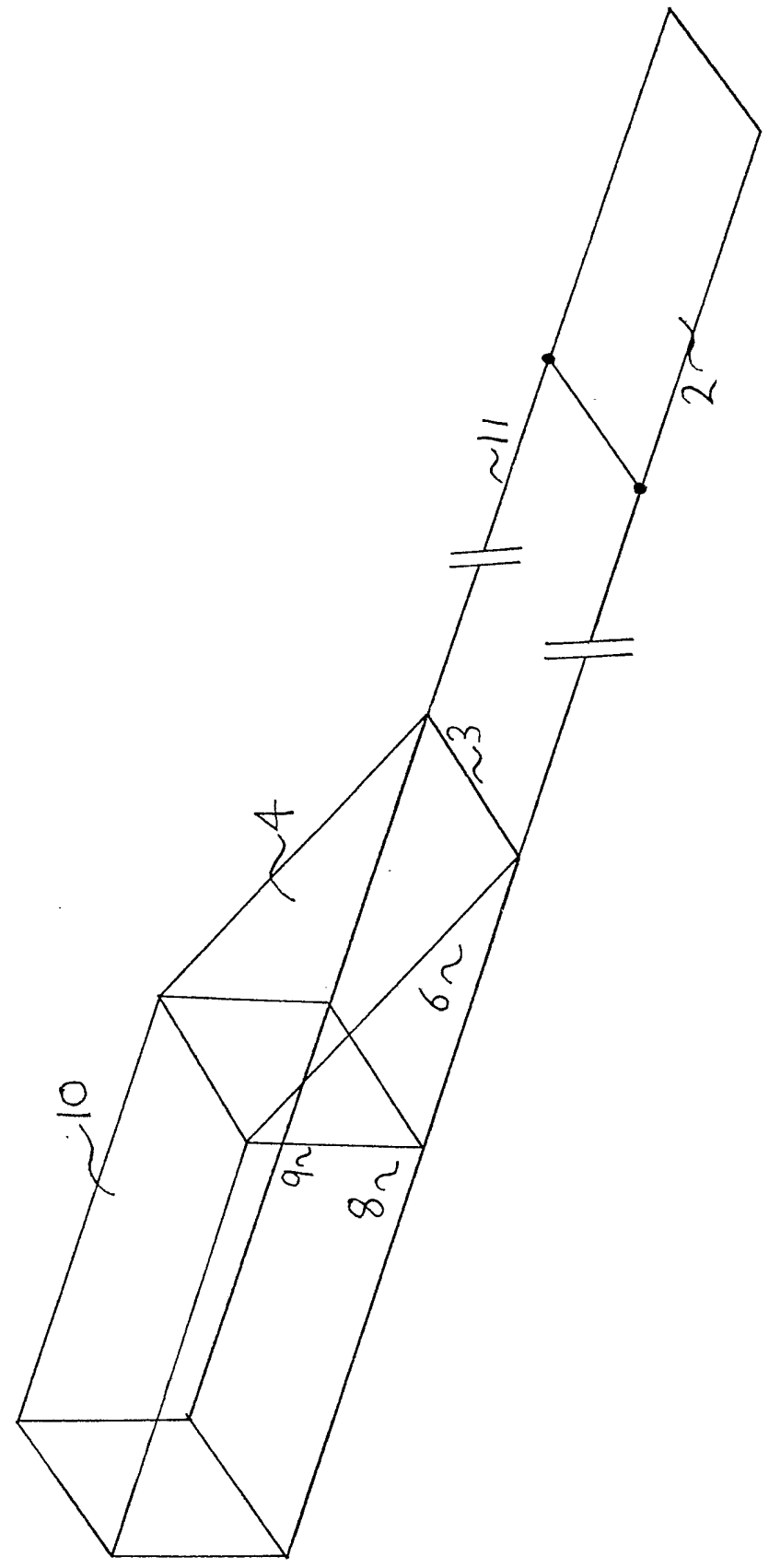
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FIG 2

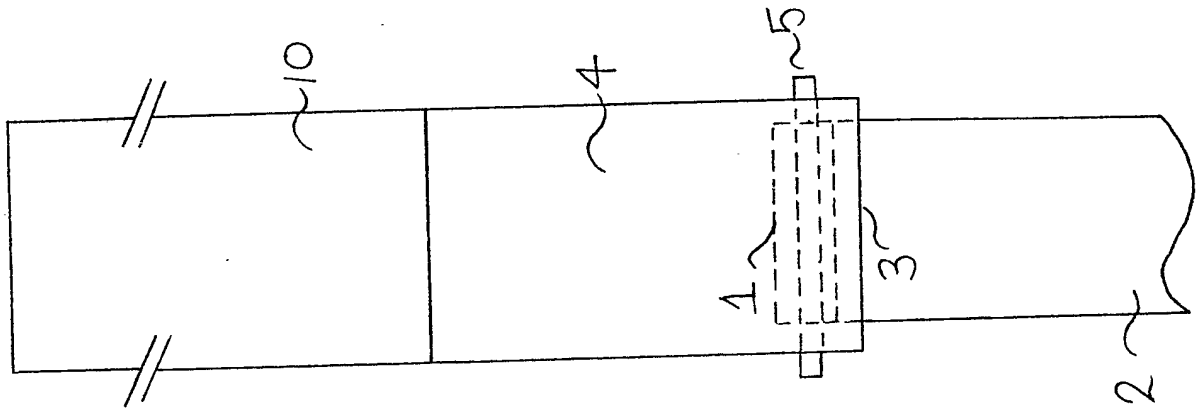
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FIG 3
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SPECIFICATION

Vehicle service ramp restraining device

5 I Douglas Watson of 8 John Street Thurnscoe, near
Rotherham, England, a British subject, do hereby
declare the invention for which I pray a patent may
be granted to me and the method by which it is to
be performed, to be particularly described in and
10 by the following statement.

This invention relates to a device which prevents
ramps which are used to elevate one end of a ve-
hicle for service or inspection from slipping or
being pushed away from the vehicle wheels as the
15 vehicle is driven up the inclined portion of the ve-
hicle service ramps onto the horizontal elevated
section.

It is an object of the invention to provide a
means to eliminate the forward movement of vehi-
cle service ramps as the vehicle is being driven up
the inclined section of the vehicle service ramps.

When work has to be carried out on the under-
side of a vehicle it is necessary to elevate the vehi-
cle so that easy access is available. There are
25 various ways in which the elevation can be
achieved. One particular method employs the use
of vehicle service ramps. These are usually of steel
construction, the elevated part being parallel to the
base which rests on the ground and connected to
30 ground level by an inclined section which is inte-
gral to the whole unit. With the vehicle wheels at
the bottom of the incline and the vehicle aligned
with, and moving in a direction towards, the serv-
ice ramps, the forward force vector is far greater
35 than the downward force vector created by the
movement of the vehicle. As a result of this and
also of a low coefficient of friction between the ve-
hicle service ramps and the ground surface mate-
rial, the vehicle service ramps tend to slide in the
40 same direction as the vehicle is moving. Thus the
vehicle cannot easily or safely ascend the inclined
section onto the horizontal platform.

This invention overcomes the problem by the
use of a strip of suitable material laid on the floor
45 directly in-line with the vehicle service ramp and
attached either directly (Figure 1) or by means of a
connecting link or links of suitable length (Figure
2).

Referring by reference numbers, Figure 1 shows
50 a profile view of a vehicle service ramp and the
methods of securing the strip of suitable material.
Figure 2 shows the alternative methods of securing
a piece of suitable material to the vehicle service
ramps. Figure 3 shows a plan view of a vehicle
55 service ramp with material attached as in Figure 1.
In this embodiment a loop (1) of suitable dimen-
sions is sewn at one end of the strip of material
(2). In other embodiments the loop (1) could be
formed by glueing, rivetting, welding or other suit-
60 able techniques. Where a connecting link or links
(11) are used it may be of any material of suitable
strength such as rope, wire or straps.

The end with the loop (1) in is then passed under
the front (3) of the inclined part (4) of the vehicle
65 service ramp. In this embodiment (Figure 3) a

dowel (5) or other suitable shape is passed
through the loop (1) so that it projects from either
end of the loop (1). In other embodiments the
dowel (5) or other suitable shape could be made of
70 a metal, wood or a plastic, being suitable with re-
gard to the amount of strength required.

The ends of the dowel (5), or other suitable
shape are now located in the area (6) where the in-
clined section (4) meets the horizontal floor section
75 (7). An alternative location could be at a place (8)
where a vertical support member (9) joins with the
horizontal floor section (7). In other embodiments
the strip of material (2) could be attached to the
vehicle service ramp with suitable hooks or other
80 similar means.

The material (2) is now in direct line with the ve-
hicle service ramp. The material (2) is long enough
to reach past the vehicle wheel which is not going
to ascend the vehicle service ramp. The vehicle is
85 driven along the strip of material (2) so that when
the wheel which is to be driven onto the ramp is at
the foot of the incline (4) of the vehicle service
ramp the other wheel on the same side of the ve-
hicle is resting on the strip of material (2).

90 When the vehicle is moved in a direction to-
wards the vehicle service ramp the wheel is able to
ascend the incline (4) because the forward force
vector is being resisted by the rearward force ex-
erted on the strip of material (2) being held by the
95 other vehicle wheel which is on the same side of
the vehicle.

In this way a vehicle can be safely driven up the
incline (4) of a vehicle service ramp onto the hori-
zontal section (10) without fear of the vehicle serv-
ice ramp being pushed away.

In other embodiments the strip of material (2)
could be replaced by an interlinking metal chain
link which is secured to the vehicle service ramp
by hooks or other similar means, or by bolts, riv-
105 ets, metal, plastic or wooden dowels or other suit-
able shapes.

The working section of material needs to be at
least long enough to always be under the wheel
which is not going to ascend the vehicle service
ramp whilst the vehicle is driven onto the vehicle
110 service ramp.

CLAIMS

- 115 1. A device which prevents the movement of
vehicle service ramps during the time of ascent or
descent of a vehicle on to or from the elevated
horizontal section.
2. A device as claimed in Claim 1 wherein the
restraining means is a strip of suitable material.
- 120 3. A device as claimed in Claim 1 or Claim 2
wherein the means of securing the strip of suitable
material to the service ramp is by means of a loop
at one end of the strip of material, through which
passes a suitably shaped rod.
- 125 4. A device as claimed in Claims 1 and 2,
wherein the means of securing the strip of suitable
material to the service ramp is by some other ap-
propriate means.
- 130 5. A device as claimed in Claims 1, 2, 3, and 4

wherein a strip of material may temporarily be attached by some suitable means to a service ramp.

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